



THOMAS G. NEWMAN,
EDITOR.

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EDITORIAL BUZZINGS.

We do Not hesitate to say,
That 1888
Will doubtless be quite choice and good,
For bees to hurry up their good;
And when they've found some honey-fruits,
I'm sure we don't exaggerate,
When boldly we asseverate,
That not a worker will be left
In slipping up the tempting bait.

The Greatest Blizzard of modern times raged last week all over the Eastern States, suspending business for four days, and working untold miseries to man and beast. Mails have been delayed by the abandonment of trains, and telegraph and telephone communications nearly all suspended. The blockade was raised last Friday, and the large cities were then restored to the world of commerce.

The Constitution and By-Laws of the Ontario Bee-Keepers' Association is on our desk. It contains 12 pages, if we may count the last page which is occupied with an advertisement of the *Canadian Bee Journal*, where it was printed. It displays poor taste to have the latter there, but as it is indifferently printed, perhaps the blunder of putting it there will be overlooked, as well as the advertisement itself.

Bees have Wintered Well.—That is the general verdict. The following are samples of the reports of all, and voice the universal hope for a good season.

P. C. Dowler, New Paris, O., on March 10, 1888, writes: "My bees have wintered finely on the summer stands. The prospects for the future are flattering."

R. F. Holtermann, of Brantford, Ont., March 10, 1888, wrote: "Our bees had a splendid flight yesterday, and reports so far go to show that bees are in very good condition generally. We can all stand a pretty good season, and we all hope for the best."

The British Bee Journal has copied our article relative to its editorial averring that an English clergyman has been to the United States, and had personally visited some "adulterating bee-farms" said to exist here. We branded the article of our cotemporary thus:

It is a base slander—a nefarious lie; neither the clergyman in question, nor "any other man" ever visited any such "adulterating bee-farms!" They do not exist!!

It is nothing more nor less than a scandalous falsehood—the production of a sensational reporter's brain, written for spice, but lacking even the flimsiest "thread" of truth!

Its only possible excuse is the infamous "scientific pleasantries" written "for the fun of the thing," by Prof. Wiley—who is so unprincipled as to let it "fly" on electric wires to "the uttermost parts of the Earth," without a word of regret, or denial!

The *British Bee Journal* states that it has instituted "an inquiry into the truth of the information supplied" by the clergyman. That is just what it should do, and our confidence in the integrity of Mr. Cowan is such that we have no doubt of its being done. He was in Switzerland when the article was published, and we expect he was as much surprised and disgusted at its contents as we were.

Our friend, the Rev. L. L. Langstroth, wrote us on the 10th inst. the following scriptural quotation which is very applicable to the situation:

I see that your severe but just condemnation of the Wiley "pleasantries" very properly finds place in the *British Bee Journal*. Proverbs xxvi. 18, 19 reads thus: "As a madman who casteth firebrands, arrows, and death, so is the man that deceiveth his neighbor, and saith, Am I not in sport?" Does not that just describe the Wiley pleasantries?

Statistics.—We have received a large number of replies from bee-men consenting to become correspondents to supply statistics to the Agricultural Department on bees and honey. One remarks thus:

If there are two or more from one county, would it not be necessary for each to know who the others are, so that they may make arrangements to divide the territory, and make no duplicate reports?

We expect when the number is full, that it will be thought necessary to print the names and addresses, and arrange the territory assigned to each person. But we are not yet informed about the details.

Mr. Aaron Singer, of Wabash, Ind., has sent us one of the Statistical Blanks which have been used in that State since 1881. It is a very indefinite and antiquated affair. It has only these three inquiries:

Number of stands of bees.
Number of stands of bees killed by moth or other causes past twelve months.
Number of pounds of honey taken past twelve months.

The blank is headed: FOR STATISTICAL PURPOSES ONLY, and properly put questions answered correctly would be all that could be desired. It is evident that the blank was made out by some one who knew nothing of bee-keeping.

Mrs. Ellen S. Tupper, who was well-known in apicultural circles some 20 years ago, is said to have died at El Paso, Texas, on March 12, 1888, where she was temporarily visiting her daughter. Since her arrest and trial for "forgery" in 1875-76, she resided in Dakota, where, we understand, her husband died.

Something like a dozen years ago, she obtained between \$30,000 and \$40,000 from banks in the West, upon "forged notes," endorsed in some instances by her friends, leaving the latter to settle with the banks after the notes had gone to "protest," and the purported signers had been proved to be mythical—among these, the editor of this paper may be enumerated for \$2,000, besides several hundreds of dollars for "expenses" and "other crookedness" on her part.

On her trial she pleaded "insanity," and to prove this, her lawyers exhibited several "bank notes" made payable to her, bearing the signature (or rather mark) of "Jesus Christ." On this plea she was acquitted, for the testimony against her was overwhelming! She was a "strong-minded woman"—but many have cause to regret that they ever saw her!! "Oh! Frailty! thy name is woman." But "peace to her dust!" Let it rest in peace.

Apiarist.—A correspondent asks the following questions:

Will you be kind enough to explain why "apiarian" cannot be used as a noun as well as "apiarist"? The suffixes "an" and "ist" both mean the same thing, and I confess I can see no reason why we should not say "apiarian." If not, why not?

Why is "queen-rearing" to be preferred to "queen-raising"? Please give us some more "light" on these words.

We reply, the standard authorities such as Webster, Worcester, Kirby and Zell, all agree that apiarist is the noun, and apiarian the adjective. The choice of the suffixes having already been made, it is unnecessary for us to explain why—we simply use the words as they are defined by lexicographers.

Queen-rearing is a more elegant expression than queen-raising—we therefore prefer to use it.

A White Clover Blossom is received from Mr. J. W. Winder, of Louisiana. While the Eastern States were taken possession of by a blizzard, and all the Northern States are experiencing "the chilling blasts" of winter, it is refreshing to know that somewhere the flowers are blooming, the birds are warbling their sweetest notes, and all Nature is smiling under sunny skies. Welcome, little blossom, as the harbinger of coming spring!

Mr. C. C. Dailey, of Chicago, has placed one of his tin feeders in our Museum. It has a projecting trough which may be put into the entrance of the hive, and under the frames which connects with the outside reservoir. We brought a similar one from Europe in 1879. This has more surface on which the bees can get the food.

GLEAMS OF NEWS.

The Weather in England.—The British Bee Journal for March 1, 1888, contains the following item on the comparative weather in Great Britain and North America:

While in the great northwest of North America we are told that those awful visitations called "blizzards" (i. e., tornados of icy particles) have swept over large districts, destroying man and beast, that the whole country was freezing with the thermometer ranging from 50° to 60° below zero for several weeks, and then suddenly rose to 50° and 60° above zero, "causing the bees to sport in the balmy air," here, in old England, a week of unusually mild weather over the whole country was followed by a change to the opposite extreme, and for the last fortnight the earth has been frost-bound and covered in all parts by deep snow, the storms having begun in the north of Scotland, and spread southward, until the whole face of the land is covered with an icy garment of snow. From Scotland, Ireland, Wales, Somerset, Cornwall, Jersey, France, Spain, Switzerland, etc., the same accounts reach us, of snow and frost in abundance with cutting, searching north and east winds, such as the oldest inhabitants never remember to have occurred at this season of the year, when we were all looking for balmy airs and gentle zephyrs to usher in the spring. In our southern counties the hazel catkins were beginning to appear, the dead nettle and speedwells were in bloom, and on sheltered banks beneath the hedges the spring flowers were bursting into bloom, when horrid Winter, with icy hand, again seizes upon every scrap of vegetation and nips it in the bud. And still, as we write, snow on the hills, snow in the valleys, snow everywhere, and snow still falling! But we shall be told that vegetation was getting forward, that a check was required, that better now than later (yes, if we do not get it later as well) that—

"February should fill the dyke,
And if with the white
It's the better to like."

Well, let those like it who can, but we do not think our bees will be among the number. By the cutting, withering blasts, and driving, piercing snow, their numbers will certainly be thinned, and many a colony will fail to greet the sunshine—when it comes—with murmuring joyful hum and gaily quivering wing. For ourselves we shall in the future certainly pray, in dear old Virgil's words—"Di talem terris avertite pestem—O, ye gods, avert such a scourge from the earth."

Bees and Grapes.—The editor of *Popular Gardening*, when commenting upon the late meeting of the Michigan Horticultural Convention, and the discussion upon the value of bees to grape-growers, says that nearly all the testimony was in favor of the bees, and then adds:

Mr. J. A. Pearce had a new point in their favor. He said that birds punctured a large number of his early grapes, and the juice ran out, disfiguring the clusters, and he thought they would be entirely unsalable. But the bees came to his rescue and sucked up all the oozing juice, cleaning out the injured grapes, so that a slight brush would rub off the dry skins, thus the unpunctured grapes were clean, and he was able to put them on the market, securing fair remuneration for them. Many instances were given

were bees were indispensable in promoting the setting of fruits, especially in squashes, melons, etc., and the fertilizing of beans, clover and peas, which could not go on without the aid of bees.

Another Blow.—At the Maine Bee-Keepers' Convention, the President, in his annual address, gives another blow at the infamous lie of Prof. Wiley about manufactured comb-honey. He said:

We have just passed through one of the hardest seasons in our pursuit that has been known for many years. It is said there is never a cloud so dark but it has a silver lining. I think it is not hard to see at the present time that this poor season may be a blessing in disguise, and may work for the good of our business.

Our large markets had got over-stocked with honey, prices had been knocked down by shipping honey into the already over-stocked markets, until honey was selling at ruinous prices.

The Wiley lie was floating over the country, that there were numerous manufactories where bee-comb was manufactured and filled with glucose syrup, and sealed over with hot irons. The newspapers wafted this story along, and thousands believed the story, although it was so inconsistent.

This failure of honey from the flowers has cleared out the honey markets, so that commission men have called loudly for honey, at good prices. Where are these gluck-manufactories all this time, that they allow the markets to become so bare of honey even at the doubled-up prices? This ought to open the eyes of the community on this subject, and strike a death-blow to that infamous lie.

Fastening Foundation in sections has been commented upon several times, and some machines described in these columns. On page 171, Mr. Eden made some statements about such machines in general, and on the one made by Mr. Alpaugh in particular. To this the latter objects; and, in justice to him, we must let him make the following correction:

As Mr. Eden in his article on page 171, refers more to me than any one else, I would like to correct some of his statements. He says, "one of the faults with the majority of machines is, that they cannot be adjusted to different sized sections, some machines (and Mr. Alpaugh's is one of them) can only fasten foundation into 4-piece sections, and that before they are put together." I would like to contradict that statement; one of my machines in use not far from where he lives (made a year ago), was made to suit sections of different sizes, and I have now arranged the machine so that it will fasten foundation in either 1 or 4 piece sections, and width from 1 to 2 inches, either before or after the section is put together, either for full sheets or starters.

In my last, I omitted to state: No matter what the temperature is, so long as it will permit the foundation to be handled.

JACOB ALPAUGH.

Our correspondents should be careful when making statements, to know that they are correct before they are allowed to appear in print.

The British Bee-Keepers' Adviser is the name of the new monthly published at two shillings per annum. Address J. Huckle, King's Langley, Herts, England.

Mr. R. A. Grimshaw, in the British Bee Journal, says that the "bee-disease" so-called which, sometimes affects bee-keepers (Mr. Heddon for instance) is "pollen-cold," or hay-fever. He prints, side by side, the symptoms of it given by the latter and Dr. Mackenzie in his work on "the catarrhal symptoms of hay-fever." Mr. Grimshaw then adds:

If we read what Pastor Schonfeld tells us on "What do bees use in winter when the pollen collected by them is exhausted?" we shall find plenty of evidence that there is plenty of pollen at hand in the hive in winter, in old combs, cell-walls, and margins, membranes left by the nymphs, and in the excreta of larvæ at the bottom of the cells. He shows that even the stomach of the bee, let alone that of the larva, is unable to make all the pollen-grains yield up their contents, by reason of the hardness of the extirpe resisting their digestive or assimilative juices. Now when bees go out of their hives silver and golden in hue, the body hairs covered with pollen, bent, as the insects are, in making the most of a honey glut, and leaving the pollen-cleaning until dark, the whole hive will be not unlike a flour-mill, the air charged with floating grains. If one, at this time, only take a peep under the edge of the quilt (even has a smell at the bees, as Mr. Heddon puts it) a current of hot air rushes out of the opening, carrying on it myriads of pollen-grains to the nostrils. By the showing of various bee-keepers, the disease instantly begins its course. What theory so reasonable as that he gets it from pollen grains fanned about by multitudes of agitated wings, especially when the apparent causes and symptoms are so identical with those of hay-fever known under other names, e. g., pollen catarrh, summer catarrh, idiosyncratic catarrh, rose-cold, peach-cold, and pollen poisoning?

I do not doubt that the bee which flew close past Mr. Heddon's face, and gave him an attack, instead of discharging poison, wafted pollen-grains, which he inhaled. In short, with the infinitesimal percentage of people who are subject to pollen-poisoning, to keep off certain flora gives immunity, and equally keep away from the pollen collected by the bee, and there is no bee-disease. The two must be identical.

My remarks, however imperfect, would be still more so if I did not say something with regard to prevention, etc. Dr. Morel Mackenzie says, "If the poison be continually introduced into the system, the antidote, if one exists, can have but little chance of effecting a cure. Change of residence, from the country to the seaside or town, is recommended," (keep off the bees). And (strange to say, but welcome to bee-keepers), he recommends also a veil to be worn over the face. "I have found a 'double gossamer' veil, which can be had in several colors, answer the purpose in some cases. Protected in this way many people predisposed to hay-fever escape altogether." *Verb. sap.* Tobacco-smoke sometimes affords relief. One part salicylic acid to 1,000 of water, snuffed up the nostrils cuts short the disease. (Binz.)

Prevention being better than cure, let those who are susceptible wear a fine silk veil.

New Catalogues for 1888 are on our desk, from the following persons:

Edward R. Newcomb, Pleasant Valley, N. Y.—37 pages—Bee-Hives and Bee-Keepers' Supplies Generally. This is the handsomest catalogue of bee-keepers' supplies issued for the present year.

J. E. Pryor, Dexter, Iowa—8 pages—Bees, Honey and Supplies.

J. C. Sayles, Hartford, Wis.—9 pages—Apiarian Supplies.

MATTERS OF INTEREST.

The Bee-Keepers' Union.—The case of Z. A. Clark is now being attended to by two of the most noted lawyers of Arkansas: Hon. S. W. Williams, of Little Rock, and Major Witherspoon (ex-Attorney General) of Arkadelphia. Mr. Clark gives the following particulars of the present status of the case:

I was released on *habeas corpus* bond on March 2, for my appearance at 10 a.m. the next day. I had not been home with my family more than about three hours when I was arrested and taken before the Mayor and fined \$14 and costs, and remanded to jail again. Of course it would be nonsense to pay the fine, and go back and have the same thing to go over again the next day. Judge Williams advised me never to yield, as we rest on a constitutional right to defend our homes and property. I have suffered physically and mentally since this persecution began. We failed on the *habeas corpus* before the County Judge, and as my wife was worried and distressed about the matter, she had the whole apiary dumped outside the corporation line. This is a disastrous loss, as I have been hard at work about eight years to build up this apiary, and now it is taken from us without a trial by jury.

The Mayor fined me one day when no one had seen any bees about my place. He sent the Marshal to my house to ascertain if he could see any bees. One day it was cool, and no bees were flying. The Marshal did not see any bees, and swore that he did not, but the Mayor fined me "all the same."

We have appealed all the cases—eleven in number—the first day's fine was \$5, and an additional dollar for each day; the last day's fine being \$15. He even fined me after we had made affidavit asking for a change of venue, because that I "could not get a fair trial, and that he was prejudiced, etc."

I am confident that if bee-keepers could fully realize my condition, the Bee-Keepers' Union would have 10,000 members in 24 hours.

The following is a sample of many letters we have received. It is from J. T. Scofield, of Barnesville, Ohio:

I hope the Arkadelphia case will enlist the sympathy of bee-keepers who were not heretofore members of the Union. Our brother bee-keepers should be defended, and if necessary the case should be appealed to the court of last resort by the Union, and fully vindicated. I will pay assessments if needed.

Mr. James McNeill, of Hudson, N. Y., wrote thus on March 12, 1888:

I am much interested in Mr. Z. A. Clark's plucky defense of his rights in keeping bees. It is our duty to stand by him, and hold up his hands while he is suffering imprisonment, and put to great inconvenience and pecuniary loss in the defense of a principle which is dear to us all. Surely in a matter of this character the injury of one is the concern of all. I would willingly pay a dozen assessments rather than have Mr. Clark worsted in this matter.

No assessment would be necessary, if but a tenth of the bee-keepers of America should join the Union. The Manager does not favor an extra assessment, and will not consent to such, unless it becomes an absolute necessity. If its devotees will not defend the pursuit, who should do so? The

defense should have universal support. A few ought not to bear the burden for all.

Mr. A. C. Tyrrel wrote the following letter on this subject:

I enclose \$1 which please place to benefit fund to aid Mr. Clark in his suit with the city authorities of Arkadelphia, Ark., who, by an unjust ordinance, and enforcing the same, have deprived a worthy man of his liberty, and rights accorded to every citizen of the United States. Granting that Mr. Clark has been guilty of a crime in not obeying the decree of a City Council, and Mayor of that unsavory city—under the Constitution of the United States, he should enjoy the right of a speedy and public trial by an impartial jury, which it appears has been denied him. He should have applied for and have been released immediately on a writ of *habeas corpus*, and forthwith instituted criminal proceedings against the Mayor for depriving him of his liberty, and for refusing him a trial by a jury of his countrymen. He has a strong case if properly managed, and I believe he is entitled to damages for the unlawful act. In view of the fact that similar suits are liable to be commenced against bee-keepers without a moment's warning, let every bee-keeper in the United States who is able contribute \$1 to the Bee-Keepers' Union, to be expended in defending worthy bee-keepers who are unable to procure counsel. The amount is so small none would feel the loss, for it is not a loss when expended for a worthy purpose, and you will have the sweet satisfaction of knowing that a small portion of your money has been of lasting benefit to an unfortunate brother—a victim of prejudice and ignorant fanatics.

Honey from Apple Blossoms.

Prof. Cook remarks in the New York Tribune that but few kinds of honey are superior to that from apple blossoms. The color is light amber, and though not quite equal in appearance to that from clover or basswood, it is not so dark as to be objectionable. The flavor is very characteristic, and reminds one of quince preserves. Upon sampling it no one has ever expressed anything but admiration of its quality. The fact that so early in the season as apples bloom, there are very few bees in the hives, as there are yet but few pleasant working days, accounts for the fact that we usually get very little honey from the fruit blossoms.

White Clover and Plum blossoms are received from Mr. E. Israel, of Mississippi. He says the bloom of the elms and maples have come and gone. White clover has been in bloom since the last of February, but he has not yet seen a bee on it.

Frank Leslie's Sunday Magazine for April marks the fact of its being an Easter number by a fine hymn tune, "Christ is Risen," by C. Wenham Smith, and two Easter poems, viz: "Easter—Beside a Tomb," by Myrta Harper Lockett, and "Easter Flowers," by Maria A. Agur. "His Banner Over Me," comes to a happy conclusion, and a new story by George Macdonald, entitled, "The Elect Lady" is begun. As usual in this magazine, there are many short articles, and an abundance of illustrations, both large and small.

Gathering Statistics.—Mr. F. Wilcox, of Mauston, Wis., on March 9, 1888, sent us the following on the above subject:

In reply to your editorial on page 147, "Gathering Statistics," I will say: I have just mailed to J. R. Dodge, statistician, a list embracing one name from each county of Wisconsin where apiculture is of any comparative importance. Those personally known or recommended to me were marked to designate that fact. As to the willingness or fitness of the others, I advised him to satisfy himself by correspondence.

Your plan of asking for volunteer correspondents, is a good one, and will help you very much. In my opinion, no one should be depended upon until he first consents to serve, however well qualified he may be.

I do not understand just how the Department will use two correspondents from a county. If each reports the crop of the whole county, it will be a double report; if each attempts to report a portion of the county, I fail to see how they will know when they have it all reported and none counted twice.

If but one is employed to report the county, and he is paid something to cover the expense of correspondence, the name of every bee-keeper in his county can be obtained from the assessors or town clerks when he can furnish each bee-keeper with blanks, and ask for a report at certain specified dates. I doubt if a full and accurate report will ever be obtained without the use of money enough to pay the unavoidable expenses.

Permit me now to offer a word of friendly criticism of your plan of collecting statistics by assessors. The first impulse with some persons is to conceal some portion of their property from the assessor. The assessor also wishes to underrate the number of horses, cattle, hogs, sheep, colonies of bees, etc., that his town, city or village may have some advantage when it is equalized by the County Board. In short, the assessors would not report more than half or three-fourths the bees to the county clerk. In regard to the honey crop of the previous year, the assessor could get a fair estimate, but I can see but one way that the information can be used when we get it, that is, let one reporter from each county estimate what per cent. of last year's crop the present crop is, and then figure out the number of pounds from the assessor's returns.

Now I stop. I do not feel competent to give much advice on this subject.

The task is one of Herculean dimensions, and what the result may be it is too early now to even guess. We shall arrange the names into States, and perhaps counties, but that will represent considerable labor. The list will in all probability be printed.

A Correspondent desires us to state "which is best—to have the entrance face the end of the frames, or their sides?" To have it at the ends of the frames saves the travel of the bees, as they can enter at the end of any frame desired.

New Music.—We have received from Richard A. Saalfeld, 41 Union Square, New York, the following pieces of music: Rockaby Lullaby, by Chas. H. Williams; The Old Love Story, by Edwin Christie; White Sails in the Harbor, by J. P. Skelly; Pretty as a Butterfly, (Schottische) by Newcomb; Tripping Through the Clover, (Polka) by Ed. Holst. They retail for 40 cents each. Sent post-paid at half-price (\$1.00 for the lot), by the publisher, Richard A. Saalfeld, 41 Union Square, New York.

QUERIES AND REPLIES.

DISTURBING THE CLUSTER OF BEES.

Written for the American Bee Journal

Query 525.—In looking into a hive on a cool morning in early spring, by raising the hive from the bottom-board and peering up, or by raising the honey-board and looking down, where do the bees show the most activity, at the bottom or at the top of the cluster?—New York.

At the bottom, always.—G. M. DOOLITTLE.

At the top.—MRS. L. HARRISON.

Other things being equal, at the bottom.—A. J. COOK.

I never take time for this particular investigation.—H. D. CUTTING.

I give it up; however, as heat rises, I would say, at the top.—J. M. HAMBKAUGH.

At the bottom, usually. Why?—JAMES HEDDON.

At the top, I think. I never have tested the matter.—M. MAHIN.

I have never seen any difference.—C. H. DIBBERN.

On a really cool morning in early spring there would be no perceptible difference.—R. L. TAYLOR.

Probably at the top; but this is one of the important things which I never thought of.—EUGENE SECOR.

The bottoms to my hives are nailed on tight, except Heddon's and Armstrong's; and having used them but one season, I do not know; but in the cellar this winter the most activity is at the bottom.—A. B. MASON.

I do not know. Sudden admission of light is apt to disturb the bees at either the top or the bottom. As far as my observation goes, there is no difference.—J. M. SHUCK.

Invariably at the top—taking for granted that it is too cool for them to fly out; as the top is always the warmest.—P. L. VIALON.

If the querist has a practical object in view, in asking such a question, will he please state it? I give it up.—G. L. TINKER.

That depends. When undisturbed they would be more active at the top of the cluster. You cannot raise the honey-board nor lift from the bottom-board without some disturbance of the bees and signs of activity.—J. P. H. BROWN.

I have not often looked at the cluster from below. I should think that the "activity" would show more where the disturbance was the greatest, and you cannot look at the cluster

from below with as little cause of disturbance as you can look at them from above. Every thing else being equal, the cluster should show the greatest activity at the top of the cluster, as the greatest warmth of the hive is at the top of the combs, and here is where the first white tips of the lengthened cells appear in the early spring.—G. W. DEMAREE.

At a guess I should say below, if there is any difference; but I do not know. Make observations and you can determine, but I am not sure that the knowledge will be of any value.—C. C. MILLER.

I do not think that it will make any difference; that is to say, the most activity will be shown first where the bees are first opened to. But why open the hive at the bottom at all, if properly packed? or why disturb the bees at all, anyhow? I can see no good reason for so doing.—J. E. POND.

In the first place we would advise the author of the query not to open the hive on a "cool morning," unless absolutely necessary either to prove some scientific point or repair the effects of some dire calamity. In cool weather the warmest place is at the top of the frames, and there the bees will usually be clustered. The admission of light and air suddenly, will cause activity among the bees, whether it be at the top or bottom.—THE EDITOR.

DESTROYING DRONE-BROOD IN THE SPRING.

Written for the American Bee Journal

Query 526.—1. How will it do to kill all drone-brood as it may be capped over in the spring? 2. Will it prevent swarming to any extent? 3. Will it tend to make the bees cross? 4. Have you tried this method?—Ravenna.

1. I should not advise doing it. 2. It will not. 3. It will. 4. To some extent.—MRS. L. HARRISON.

1. If you do not want drones, what do you rear them for? Kill them if you want to, and then rear more, and kill them, and so on, etc. 2. No. 3. No. 4. Yes, but I do not intend to do so any more.—A. B. MASON.

It will pay you better, and be more quickly done, to cut out the drone-comb and replace with worker-comb.—DADANT & SON.

1. It will do well. 2. To no great extent. 3. In most cases it does so. 4. I have, hundreds of times.—J. P. H. BROWN.

1 and 2. I do not think that it would pay for the trouble, or that it would prevent swarming. 3. I do not know. 4. No.—C. H. DIBBERN.

1. It is better not to have drone-brood. If killed, the queen will immediately lay eggs in the combs, and other drones will be produced. 2. No. 3. No. 4. No.—M. MAHIN.

1. It might do to cut out all drone-comb in the spring. 2. Many drones incite to swarming when there is much honey coming in. 3. Yes. 4. Yes.—G. L. TINKER.

1. Yes, it will do, but it is not profitable to rear brood to kill. Why not rear worker-brood instead of the drone-brood? 2. I think not. 3. No. 4. Yes, years ago.—R. L. TAYLOR.

1. It will do better than to let them hatch out. 2. No. 3. No. 4. I have uncapped considerable drone-brood.—C. C. MILLER.

I have to use this method nearly every spring on account of queen-rearing, to prevent having drones from hybrids or inferior queens, and I never noticed that it made any difference with the bees.—P. L. VIALON.

1. It would be better to keep the drone-comb out. 2. No. 3. No. 4. Yes, often, both by pruning out all drone-comb and cutting off the heads of the drones. The first method is the best, by far.—A. J. COOK.

1. I have not tried the plan for the purpose you speak. I do not think it will do to practice. 2. As to preventing the bees from swarming, I cannot say, but I do know that it will make them cross. Cut out the drone-comb and replace with worker-comb, before the bees occupy it.—J. M. HAMBKAUGH.

1. It is far better to get rid of the drone-comb, so as to prevent the rearing and feeding of this brood. 2. No. 3. No, not unless you make them so by your careless handling. 4. I used to practice decapitating drone-brood, but I prefer not to rear such, of late years.—G. M. DOOLITTLE.

1. I would not advise it. 2. I do not believe that it would. 3. I cannot say. 4. No. It is too much trouble, even if it should be successful. It is too much like cutting queen-cells to prevent swarming—more work than the honey-producer can well afford.—EUGENE SECOR.

1. It is better to cut out the drone-comb before it contains eggs. It would be better still to use full sheets of foundation, and thus avoid drone-comb. 2. and 3. It will not prevent swarming, nor make the bees cross.—JAMES HEDDON.

1. It is not advisable to do so, unless there is likely to be a great number of them to play the part of worthless consumers. The best way is to remove the drone-comb from the brood-nest, and supply its place with worker-comb. 2. No, it has no effect

whatever, so far as I have been able to see. 3. I have noticed that bees were cross when I have decapitated their drone-brood. 4. Yes, often; but I now regulate the number of drones by regulating the combs in the brood-chamber.—G. W. DEMAREE.

1. It would depend upon circumstances. 2. I do not think that it will prevent swarming. 3. I do not remember that it made any difference with them. 4. I tried this plan years ago.—H. D. CUTTING.

1. It is first-rate if it is desired to prevent drone production for any reason. 2. I do not think that it will affect the matter of swarming at all. 4. I have often killed drone-brood in the comb, in days past; but of late years by the use of foundation. I can control the matter quite easily, and with far less trouble.—J. E. POND.

This can be done with a colony or two for experiment. The method, if it be a method, is not practical. Banish the drone-cells from the hive by the use of foundation, or patch up full frames of worker-comb; or, if you find that one of your colonies builds mostly worker-comb, use it for that purpose. Have all worker-combs by hook or crook, and do not rest until you get them.—J. M. SHUCK.

If you do not desire drones, cut out the drone-comb; if you kill the brood, the queen will lay eggs in the cells, and you will have more to "kill." That plan will not prevent swarming, and will not improve the temper of the bees.—THE EDITOR.

CONVENTION NOTICES.

☞ The Wabash County Bee-Keepers' Association will meet at North Manchester, Ind., on April 10, 1888. F. S. COMSTOCK, Sec.

☞ The Eastern Indiana Bee-Keepers' Association will hold its spring meeting on Saturday, April 21, 1888, at Richmond, Ind. M. G. REYNOLDS, Sec.

☞ The Cortland Union Bee-Keepers' Association will hold its spring meeting on May 8, 1888, at Cortland, N. Y., at 10 a.m. All bee-keepers are invited. W. H. BEACH, Sec.

☞ The Des Moines County Bee-Keepers' Association will hold its next meeting on April 24, 1888, at Burlington, Iowa. JOHN NAU, Sec.

☞ The Hardin County Bee-Keepers' Association will meet at the Court House in Eldora, Iowa, on the second Saturday in each month, at noon (12 o'clock), until further notice. J. W. BUCHANAN, Sec.

☞ The next regular meeting of the Susquehanna County Bee-Keepers' Association will be held at New Milford, Pa., on Saturday, May 5, 1888. H. M. SEELEY, Sec.

☞ The 18th semi-annual session of the Central Michigan Bee-Keepers' Association will be held in the Pioneer Room at the State Capitol, on Saturday, April 21, 1888. Prof. A. J. Cook will give an address. A cordial invitation is extended to all, as it will be a very interesting meeting. W. A. BARNES, Sec.

☞ The tenth annual meeting of the Texas State Bee-Keepers' Association will be held at the headquarters of Vice-President W. R. Graham, in Greenville, Hunt Co., Texas, on May 2 and 3, 1888. A leading feature of the convention will be criticisms upon subjects that have been mentioned in the bee-papers. A good time is expected, so let all Texas and Arkansas bee-keepers attend. A cordial invitation is extended to all bee-keepers who have ever dispersed. Remember, no hotel bills to pay at our conventions! B. F. CARROLL, Sec.

CORRESPONDENCE.

IN UNION IS STRENGTH.

Written for the American Bee Journal
BY D. C. BUCK.

Let us like a band of brothers,
Raise our standard high above,
And we'll fight for one another—
All for right and brother's love.

Let "advance," then, be our watchword,
And "In union there is strength;"
So let us thus be felt and heard,
All o'er our land's great breadth and length.

Then rally to our cause, friends,
Let's show what we can do,
In fighting for our rights, and then
Demonstrate that we are true.

Our Bro. Clark lies now in jail,
For keeping bees in town;
Let's help him out on bail,
Then beat the opposition down.

His loved ones now, with broken hearts,
Miss husband and father so dear,
Come, brothers, come! We'll take their parts,
And show that their cries we hear.
Dundee, Mich.

ALFALFA.

The Growing of Alfalfa in Colorado, etc.

Written for the American Bee Journal
BY WM. MUTH-RASMUSSEN.

In answer to Mary A. Goodale's article on page 792 of the BEE JOURNAL for 1887, I send the following from the *Denver Field and Farm*, in regard to alfalfa in Colorado:

How to Raise Alfalfa.

"Alfalfa is not an expensive or difficult crop to grow. The seed will cost here about 10 cents per pound, and 25 or 30 pounds is ample for an acre of land. It should be mixed and sowed with barley or rye, as usually the first year it is thin, and the barley will keep down the weeds, and at the same time make a splendid feed. Besides, it springs up quickly, and affords protection in the way of shade to the tender, young alfalfa plants. One man with a fairly good single team can plow, sow, and harrow in, about 2½ acres per day.

"There are various times for seeding alfalfa. Fall seeding is attracting some attention, although early spring planting is preferred by many. The month of February in Colorado, if the weather is open, and the ground has been prepared beforehand, is a good time to seed, for the late snows are very beneficial to the seed in the ground. It should be irrigated about three times between cuttings. One man will irrigate five acres per day if the ground is in good condition, and there is a fair head of water. It is

probably fair to estimate the expense of cutting, raking and putting in stack at \$2 per acre. Thus it will be seen that the total cost of the first crop of an acre of alfalfa, including the purchase of seed, plowing and planting, irrigating, cutting, stacking and baling, will not exceed \$8. Baling, however, is not commonly done, and that expense is usually dispensed with.

"The uses of alfalfa are fourfold. The cattle-men are the heaviest consumers of alfalfa. When it is fed, no grain is necessary to keep saddle stock in fine condition. A large amount is also fed to poor cows with calves, on a short range, which otherwise would not be able to raise their calves. And the time has come when the steers of this section, now shipped East and sold as feeders, will be fattened on alfalfa, shipped to the market and sold at 4 and 5 cents per pound instead of 2, as has been the custom for some time past.

"Another great use of alfalfa is in hog-raising, but as the great American porker has only a few friends in Colorado, the industry has not yet received much attention. It is said by those who know, that one acre of alfalfa will fatten forty head of hogs per year. We will figure the hogs at 200 pounds each, and say they are sold at Kansas City quotations at 3½ cents per pound—they are worth more money here—and it will be seen that one acre of alfalfa will grow \$280 worth of pork per year. Now figure the interest invested in the hogs, and the cost of caring for the same, and you have the net profit of your alfalfa.

"It would seem that with these facts at command, Colorado farmers ought surely to raise hogs sufficient to supply at least the Denver market, which has to depend largely upon the corn counties of Nebraska and Kansas for pork supplies."

There is no doubt that alfalfa is a valuable plant for honey, aside from its other uses. During eight years residence in this locality, where I depend altogether upon alfalfa for my honey crop, I have never found it a failure. In an ordinarily good season I can always depend upon getting two sets of (84) sections finished by each colony of bees, while some colonies will finish three sets (120 to 126 sections). The honey is very white, and of excellent body and flavor; but if wild flowers are abundant, as after a very wet winter, their honey will give the alfalfa honey an amber color.

The value of alfalfa as a honey-plant depends mainly upon how it is treated by farmers. In the southern counties, where barley is used for hay, alfalfa is used mainly as green fodder,

or sometimes as hay for milk-cows, and is cut as soon as the bloom appears—four to six times during the season. There it would consequently be of no value to the bees. Here the alfalfa is used as hay for horses, and is cut generally only twice, sometimes three times, and the first two cuttings never until it has formed seed, or is nearly out of bloom.

As it is always irrigated, and the roots strike deep down into the ground, it is independent of local rainfall. With plenty of snow on the mountains, furnishing the water for irrigation, we feel safe in predicting a good season.

The past year the first crop of alfalfa yielded well, but for some reason, probably connected with the causes of the general failure everywhere, the second crop yielded but sparingly. Still I got over 5,000 pounds of very fine comb honey in sections, which sold at a fair price; and I might have sold carloads (having had calls for such quantities) if I had had it.

P. S.—Alfalfa hay sells here for \$7 to \$8 per ton, unbaled, delivered to the buyer.

Independence, Calif.

REVERSIBLE HIVES.

Experience with the Sectional Hive—Severe Weather.

Written for the American Bee Journal
BY JOSHUA BULL.

The report of my success with one colony which I put into a Heddon sectional hive, is as follows:

Colony No. 7 swarmed on June 30, 1887, and was hived in a Heddon hive on a new stand, with full sheets of foundation in the brood-frames. After the above date, as poor as the honey season was last summer, this colony filled two sectional parts of the hive with brood and honey, and two more sectional parts solid with honey well capped over; also 56 sections $4\frac{1}{2} \times 4\frac{1}{2}$, and 7 to the foot, filled with honey and nicely capped over, besides another case of 28 sections which were about half filled when the honey harvest ended.

When I removed the supers from this colony at the close of the season, I was obliged to allow them three sectional parts of the brood-chamber for winter quarters, for the bees could not all get into two parts.

I do not give the foregoing as an average case; I had no other colony that did as well as this one—neither do I attempt to say how much or how little the hive had to do with the result. I simply state the facts in the case, and leave it for each one to draw his own conclusions.

In order to make the history of this colony a little more complete, I might say that the parent colony was wintered on the summer stand, upon deep frames of the Jones pattern; and that prior to the issuing of this swarm, they had filled and capped 54 sections $4\frac{1}{2} \times 4\frac{1}{2} \times 2$ inches, making 110 sections in all; and 4 sectional parts of a hive, besides some unfinished sections.

Cold Weather Since New Years.

Since New Year began, the winter has been very severe in this locality, frequent heavy storms alternating with extremely cold weather. On Jan. 21 my thermometer indicated 46° below zero, and on Feb. 9, 45° below; since the latter date it has not been quite so severe, although it is often below zero. Notwithstanding the intense cold, bees on the summer stands appear to be in fine condition, so far as can be ascertained without lifting the frames. Bees in my cellar are apparently as well and happy as they were last September. Although the mercury has been down to zero and below, every morning for the past five days, yet I heard a crow to-day, which is a precursor of spring.

Seymour, Wis., March 7, 1888.

KENTUCKY.

Bee-Hives and Frames as Used in Kentucky.

Written for the American Bee Journal
BY G. W. DEMAREE.

The article of J. M. Tyler, on page 821 of the BEE JOURNAL for 1887, will doubtless be a surprise to many Kentucky bee-keepers. From his remarks about the Langstroth hive, one not acquainted with the facts, would be led to believe that the Langstroth hive is a rare thing in Kentucky. I have attended nearly all the bee-conventions that have been held in Kentucky for the past ten years, and I have an extensive acquaintance with bee-men of the State, and it is *news* to me, to learn that the Langstroth hive has gone out of use in this State.

In 1884 the Kentucky State Bee-Keepers' Society, through myself as its President, and Dr. N. P. Allen, of Mr. Tyler's own county, as its Secretary, sent out circulars to nearly all the bee-keepers in the State, and obtained about 100 replies. These replies among other things mentioned the kind of hives used by those making the replies.

These reports are now on file in my secretary, and they show that the Langstroth frame is well nigh exclusively used in Kentucky. More than four-fifths of all the movable-frame

hives in Kentucky are of the Langstroth style, as to size and make of frame; and four-fifths of the hives used are of the *ten-frame* size. I know but one bee-keeper in the State who uses 8-frame Langstroth hives extensively, and he lives in the northern part of the State.

I have often mentioned the fact to bee-keepers of Kentucky, that if all the States in the Union had adopted the Langstroth frame as have Kentucky bee-keepers, we would have a "standard frame" in the United States without any concert of action.

It is true that many of the advanced bee-men of the State have discarded the old portico and telescope features for a more convenient and handy outer case for the frames. But the frame itself has not been changed as to length and depth, and it is uniformity of brood-frames that makes the desirable interchangeable system of bee-hive manipulation possible.

In the olden time the bee-hive was regarded as simply a domicile—a home—for the bees, and to this day that idea clings with tenacious grip to many modern bee-men.

The big, clumsy chaff hives, legs and porticos, rabbeted or beveled tops to the sectional parts of the hive, roof-shaped hive-covers, etc., are all plain outcroppings of the old-fogy notion that the bee-hive is simply a *home* for the bees.

Were I going to build "homes" for my bees, I would build them of pressed brick, and put sky-lights in the slate roofs to warm up the "genteel" inmates of these palatial homes, in dreary winter, to enable them to take their meals more comfortably. But as my bees are my working stock, and I am the proprietor and chief manager of the enterprise, I resort to the most profitable methods of utilizing their working force, and in order to accomplish this, I put my bees on movable frames as implements in the production of honey, and these implements—movable frames—are adjusted in a handy, manageable outer-case which serves as a tenement, and store-house and work-shop for my little servants.

If anything more is necessary for the safety of my bees in the winter months, that must be a winter arrangement entirely disconnected from my hives. The honey harvest is the all-important season, and there must be no hindrance at that time.

There has been but little written on the subject of wintering bees in Kentucky, for the simple reason that plenty of stores is the main factor in bee-wintering in this State. Dr. N. P. Allen, in Mr. Tyler's own county, kept a large apiary for many years, and his plan for wintering was to confine the

bees to the brood department of the hive by means of a quilt, and in the empty super over the brood department he put about 4 to 6 inches of dry forest leaves, cut-straw or chaff. He never lost any bees if they had plenty of stores, when protected in this way.

I have wintered my bees in the same way as did Dr. Allen, for many years, except that I use from two to four extra quilts over the frames instead of the forest leaves, etc. I do this because quilts do not litter my bee-yard like leaves and chaff do, and give much less labor.

I never lose any bees if they have plenty of stores. All chaff hives and all side packing is not only of no service to our bees, but is a positive injury to their prosperity in the latter part of the winter and early spring, because such an arrangement deprives the bees of the reviving influence of the sun's rays at that season of the year.

It is a little strange, at least it will appear so to many practical bee-keepers in Kentucky, that metal queen-excluders, when used as horizontal division-boards, have been found to be a failure by Mr. Tyler. They are a perfect success when used by all the best-informed bee-keepers in this State, so far as I have heard from them. I use them extensively, and the perforations are never filled with propolis, if properly adjusted on the hive. Sometimes a few perforations are closed by the studs of wax built up from the tops of the frames, but this does no harm, as there is plenty of room for the bees to pass without these.

Many of the best things we have in practical bee-culture, are a failure under bad management. If Mr. Tyler will manage the metal queen-excluders in a proper way, I will warrant that he will throw aside the clumsy wood honey-boards, and never use them again. Let him put on the metal queen-excluders at the beginning of the honey harvest, and remove them as soon as the main breeding season is over (say about the middle of August), and he will have no cause to complain of propolis. But if he leaves them on until the bees begin to prepare for winter quarters, they will sometimes undertake to fill the perforations just as they will sometimes try to fill the spaces between the top-bars of the frames.

How the zinc-excluders adjusted between the brood and surplus department of the hive, where the direct heat of the sun never falls, could be the cause of the combs melting down in Mr. Tyler's hives, is another incomprehensible mystery. I presume that Mr. T. simply neglected to protect his

hives with good shade-boards during the unprecedented hot weather of last season. That was the trouble, not the metal excluders.

Mr. Tyler is cordially invited to join our State Bee-Keepers' Society, attend its annual meetings, and post up a little, or our good friend, Mr. Muth, will smile at him for hinting that he (Mr. Muth) is "behind the times" in bee-culture.

Christiansburg, Ky.

CAPPINGS, ETC.

Old Fogy Bee-Keepers, Swarming and Hybrid Bees.

Written for the American Bee Journal

BY H. J. ROGERS.

There are many bee-keepers in this neighborhood, and they are all of the "old-fogy" sort. I met one the other day, who, hearing of my success the past year, asked: "Can you raise a queen when you have no queen-egg?" This is a sample of other questions, all equally silly. Of course he would not invest \$1 in a bee-paper. He has kept bees for 50 years.

I predict a fearful mortality among bees in this section; not from lack of stores, but gross negligence in other details equally important. I can buy almost any number of colonies for \$2.50 to \$3.00, but I prefer to wait until the wintering problem is entirely solved.

I notice on page 824 of the BEE JOURNAL for 1887, that Mr. E. L. Holden speaks of having swarms issue in from 2 to 6 days after cutting out queen-cells, and putting back a swarm. I think that if he would wait two or three days before trying to find the cells, he would be more sure of getting them all; and he should remove two of the middle frames of brood and put frames of foundation in their place. This will be at once occupied by the queen, and brood-rearing will go on, while the desire to swarm is almost entirely overcome. Mr. H. should see that there is plenty of room in the supers at this time.

I shipped my honey last fall to a commission house in New York, and received 17½ cents per pound.

Is it a fact, that the honey stored by black or hybrid bees presents a much better appearance in the sections, than that stored by the Italians? My bees are hybrids, and when I can get 100 pounds to the colony in a good season, I do not believe it will pay to change. However, this may only be because I am a little old-fashioned myself.

In regard to bees roaring in winter, I would say that I never have heard

bees roar in cold weather unless something was wrong internally.

Value of a Bee-Paper.

No bee-keeper, in my opinion, can afford to be without the AMERICAN BEE JOURNAL. It has certainly been worth \$25 to me the last year! Some will smile at this, but I can furnish the figures to prove what I say. In the market reports alone, it more than pays back the "dollar," even though they may be somewhat unreliable—which I doubt.

Wintering and Transferring Bees.

Bees in this locality seem to be wintering well, although they are getting uneasy since the last "cold snap" stays so long (25 days). Yesterday it was cloudy, and the mercury was 30° in the shade, yet I noticed a few bees on the wing; of course none found their way back to the hives. I have bought 12 colonies in box-hives, which I shall transfer to Simplicity frames by the Heddon method. I want full sheets of foundation for the brood-frames; in no other way can I get perfect combs. I look for a good yield of honey this season.

Stannard's Cor., N. Y., Mar. 10, 1888.

[It is a fact that hybrid bees cap the honey in such a manner that a slight air-space is under the capping, and makes it appear a trifle whiter than other bees.—Ed.]

BEE-CELLARS, ETC.

Cementing Cellars—Honey-Dew Called Manna.

Written for the American Bee Journal

BY JOHN B. LINDLE.

On page 41 I notice that Mr. C. H. Dibbern recommends cementing a beecellar. Has Mr. Dibbern tried such a cellar for bees? I have, and it is a failure with me. The bricks were laid in cement, the wall was 8 inches thick and grouted, with cement outside, arched, with 4-inch brick wall cemented outside, and the floor of brick, laid on cement. The inside walls were plastered with cement, but not back plastered. It is always wet and damp. I kept my bees in it, and lost over half of them. I now use it for storing pumpkins. It is an outside cellar.

Ten years ago I built a new cellar, with a house on top. The cellar is 32x16 feet, outside measure, has an 8-inch wall, with 4-inch studding from the ceiling some 4 feet down, is chambered down at the lower end level with the wall, lathed and plastered all around with common caustic lime.

The windows are double and glassed. The chimney is midway along the foundation wall, with 4 bricks left out near the bottom for a ventilator. In this cellar I have wintered 270 colonies of bees, and lost but three during the winter of 1886-87. My cemented cellar is but 25 feet away. I can leave matches lay in the house-cellar for 4 or 5 days, and then light a candle with them. The walls are never damp.

Is Honey-Dew the Same as Manna?

Are those who reply to queries in the BEE JOURNAL, in accord with the following from the Agricultural Report for 1885, page 85?

"The nectar thus produced has a sweet and pleasant taste, and unquestionably forms at times no inconsiderable portion of our best honey; for bees are very eager in gathering it. The honey it yields is light-colored, has a pleasing taste, and is perfectly safe as a winter food for bees. The composition of honey-dew, as given by Bossingault and Zoller, is 48 to 55 per cent. cane-sugar, 28 to 24 per cent. of inverted sugar, and 22 to 19 per cent. dextrine. A little of the substance 'manite' has also been detected in it. This composition is exactly the same as that of the 'manna' collected by the monks at Mount Sinai."

Eureka! It is good to eat, good to feed, and has a scriptural name! Why not include all grades of extracted honey? What say you, brother bee-keepers? Call it *manna*.

Muscatine, Iowa.

THE "UNION."

The Apathy Among Bee-Men Regarding their "Union" for Defense.

Written for the American Bee Journal
BY B. F. LITTLE.

When the Bee-Keepers' Union was organized, thinking it a good thing, I became a member, and have paid perhaps for two years, but on account of the apathy of the bee-keeping fraternity, I dropped it. In California, where the most trouble was likely to arise, but a small number enlisted, so I thought the whole matter, so far as I was concerned, might go by default. But the way the matter looks now, no community has any guarantee of security.

Last year the Council of the little town of Clermont, Fayette Co., Iowa, deemed that no bees should be kept inside the corporate limits. Two bee-men had the choice of going out of the business, or move. One moved, and the other ceased keeping bees.

Last summer I was talking with Mr. —, a short-hand court-reporter living in — county, Iowa, who, in reply to a question of mine, as to how he was succeeding in keeping bees, cursed the bees, and said that they were a nuisance; that he had got rid of them, and that his neighbors' bees had ruined his wife's flower garden by sucking all the sap out of the plants!

Last fall one of my neighbors claimed that my bees were taking all his grapes, saying the bees were thick on them. I have partially convinced him that it was the birds or over-ripe grapes that first did the damage. I am inside of the corporation, and no community is free from "cranks." If bee-men will let the golden opportunities slip, they will have themselves to blame.

Brush Creek, Iowa.

TEXAS.

My Experience in Keeping Bees in Texas.

Written for the American Bee Journal
BY A. C. ATEN.

The seasons of 1886 and 1887 were very poor here, most of those with box-hives and black bees securing no honey at all; but those with Italian bees and movable-frame hives generally got some surplus.

I began the season, of 1887 with 85 colonies, increased them to 125, and obtained about 3,000 pounds of honey, all being extracted but 250 pounds.

My bees are in two apiaries, and have wintered well. They have been gathering pollen, and perhaps some honey, for over two weeks. There is no difficulty in wintering bees here, if we do not let them starve to death. The worst time we have in this part of Texas, is between the middle and last of March, directly after fruit-bloom. The bees use up all their honey in rearing brood, then comes a time when no honey can be found, and bees starve almost before we are aware of it. Let me say to Texans, beware of that time! You cannot be too watchful.

When they have exhausted their honey stores, they eat pollen, and it bloats them and causes the diarrhea, just as the bees have in the North, and that, too, when they can fly every day. I have seen this very often. But feed them honey or sugar syrup, and in a short time they will be all right.

The honey we got last year was of excellent quality. One of my apiaries is situated 13 miles, and the other 16 miles, north of the city of Austin; one being in a narrow strip of timber, and

the other a half mile from any timber. The land is as rich as any upland in Texas. The bees gather honey from numerous kinds of trees and plants, conspicuous among which are horse-mint, hore-hound, wild marigold, morning-glory, asters, cotton and richweed, besides many other plants of lesser note. Then we have peach, pear, wild and tame plum, haw, elm, India-gum, wild and tame China, the wild China being the best. For the last two years horse-mint has been a failure here, but I have never failed to get a surplus.

There are but few persons giving much attention to bees in this locality. One of my neighbors has nearly 40 colonies of black bees in box-hives, and did not get a pound of surplus last year. He has an excellent situation. There must be some reason for this.

Round Rock, Tex., Feb. 18, 1888.

BEEES IN A ROOF.

How to Transfer Bees from a Roof to a Frame Hive.

Written for the American Bee Journal
BY JAMES HEDDON.

I am requested to reply to the following from Mr. E. L. Plumb, Windsor, Conn. He asks:

Please inform me through the AMERICAN BEE JOURNAL, how and when to transfer bees from under the roof of a bay-window to the Heddon hive. The size of the roof is 6 by 8 feet. They have been there for three years, and are $\frac{1}{2}$ mile from my place. The owner of the house gives me the bees, honey and comb, if I will remove them.

If Mr. Plumb had my book, and would turn to page 32, under the head of "Modern Transferring," he would perhaps get an idea of how I would transfer the colony of bees that he describes above.

I do not know just how they are situated, but believing that they are so housed that I could drive out of their home, about two-thirds of the bees, I should get the "New Hive" all ready with frames filled with comb foundation, and then drive out the bees as above, and with their queen put them into the new hive, and carry them four miles away; then in 21 days open the old hive, or bay-window, and cut out the broodless combs, put the bees and their new queen into another fully equipped "New Hive," and carry them away as before. I would extract the honey from the old combs, and melt them up for wax.

There is no objection to transferring any of this empty comb into brood-frames, provided it is straight and all worker. I would not advise piecing when transferring combs; neither do I

practice transferring combs containing brood or honey.

After a few weeks—say from two to four—the colonies in the “New Hive” can be brought to your home, when they will stay in their permanent location. This moving 4 miles away would not be necessary if you could move that bay-window 4 rods away. The old colony need not necessarily be doubled; if increase is not wanted, simply carry the last “drive” out to the new colony, and add them to it. Smoke them well, and the bees will not quarrel, being all from one queen, and the queens can be allowed to fight it out, or you may destroy one, keeping your preference.

I would no more think of doing any old style of transferring than storing surplus comb honey in starch boxes.

Dowagiac, Mich.

HIVES—FRAMES.

Dimensions of Hives and Number of Frames.

Written for the American Bee Journal

BY J. R. ROEBUCK.

This is the subject of Query 514, on page 85. It is a very important one to the bee-keepers, but more so to the bees. I think that my experience of 25 years with bees, and a number of contraptions called bee-hives (some of which cost me a good deal of money, and more vexations and trouble than all of them are worth), enables me to answer some of “Maryland’s” query; hence I would like to add my views on this subject, with the answers given to the query.

As well might “Maryland” ask what size of harness a farmer uses on his horse. I cannot think of anything better to illustrate my idea than a comparison of a horse and its harness. That noble animal would be of little worth, so far as working it is concerned, without a harness suitable to its size and strength. So with a colony of bees, they are of little use unless they are in a hive suitable to their numbers.

It has long since been discovered that we either must have as many sizes of harness as there are horses to be worked, or that the harness must be made adjustable by means of buckles, etc.; the latter being adopted to be the most practicable. It seems to me that such ought to be the case in reference to bee-hives.

I will take the query in its order, viz: 1. What number of square inches of comb surface should be in a hive? If I were to harness a horse, I would try to get the harness so buckled that

it would fit up nicely and comfortably all around the horse for which it was intended, whether he was large, small, fat or lean. In giving comb surface to a colony of bees, I would use the same judgment, and give only so much as would nicely accommodate the number of bees in the colony; I believe that any more or less is not only unnecessary, but actually injurious to the bees, the same as a harness is injurious to the horse if too large or too small.

I imagine that I here some one ask, *How much is needed?* I would measure the surface needed by the amount which the colony can comfortably fill when the temperature is so that bees fly freely, say at 60° to 70°. A short and yet a correct answer to this part of the query would be, a frame of comb to any number of inches that a colony can fill comfortably, and no more.

2. What distance should brood-frames be from centre to centre? For the brood-nest I would recommend them to be 1 7-16 inches, irrespective of the top or end bars of the frame; if for extracting, the distance, I think, should be more, say 2 inches, or even more.

3. What are the inside dimensions of the frame you use? I use a frame 8½x12 inches, which is equal to, as the bees usually fill them, about 200 inches of comb surface.

4. What numbers of frames in each hive do you use? I use from one to sixteen, according to the size of the horse—colony, I mean. In connection, let me say that my surplus cases rest on top of the frames, and are adjustable so that I can use 3 to 36 one-pound sections without tiering up; and by tiering up, as many hives more as the bees can fill.

Burton City, Ohio.

EMPTY COMBS.

Utilizing Empty Combs, Room for the Queen, etc.

Written for the American Bee Journal

BY M. S. ROOP.

It is often asked, what to do with empty combs. Some say, render them into wax, hire some one to take them away, or hire young swarms on them. It seems strange that when it takes so many pounds of honey to make one pound of wax, that any one would advise destroying this valuable comb.

It would be a nice idea to have a swarm of bees on empty frames, right in the beginning of the basswood honey flow, and keep fully one-half of them busy building comb below, until the honey-flow is over!

I know several bee-men who are too stingy to buy foundation, and while their bees are filling up the brood-chamber with worthless drone-comb (which they will do when there is a good flow of honey), my bees are storing honey in the sections; then they will say to me, “How in the world do you get so much more honey than I?”

Suppose the bees do crowd the queen; give them room above as fast as they may need it, and it will be seen that they will elevate the honey as fast as the queen needs the room below. Why will not the bees in a young colony move the honey above, just the same as the bees do in the hive they came from?

Carrying Honey above the Brood.

Some one has said that, as soon as the young queen begins to lay, the bees will move the honey above as fast as she needs the room below. This is strange. Black bees will often fill their hive with honey, and then stop work. The way to do with them is, to extract their honey late in the day, taking it out so clean that they will not have enough for “breakfast;” then it will be seen that they will go to work at once. A rule that will work to perfection in the Eastern States, will ruin bee-keepers in Iowa.

Bees are wintering very nicely in this vicinity.

Council Bluffs, Iowa.

INDIANA.

The Bee-Keepers of Tipton and Hamilton Counties Convene.

The Bee-Keepers’ Association of Hamilton and Tipton counties met at Westfield, Ind., on Feb. 4, 1888, and were called to order by the President, Dr. E. H. Collins.

The minutes of the previous meeting were read and adopted, after which the society listened to a very instructive address from the President, making suggestions for the benefit of the association; the first being that it appoint a reviewer, whose duty it shall be to correct any serious mistakes that might be made in our meeting, and read them at the close of each session;

Secondly, that the executive committee be directed to make out the programme during the first of the intervening months, and notify persons of whom work is expected at the ensuing meetings of the Association; and

Thirdly, that the executive committee appoint at least one person for each meeting to experiment on some subject to be agreed upon; so that we may have at least one idea well defined.

Orren Maker was appointed reviewer for the day.

Dr. Test then read an interesting essay on the "Agency of insects in producing color in flowers," of which the following is a brief synopsis: "Many insects, especially bees and butterflies, have an acute color-sense. The exhaustive process of flowering has a tendency to give autumnal tint to leaves near a flower cluster. Insects capable of appreciating and remembering colors, would then have a mark to guide them when hunting pollen for food. Cross-fertilization would then be aided, and more vigorous plants with more showy blossoms would be produced; the color-sense in insects would become as pleasurable as useful, and the gaudiest insects would be most attracted to their mates and leave the most numerous offspring, till in time the plants passed from the unvarying green of the coal age, to the floral magnificence of the present time."

J. D. Bray read an essay upon "Doing your work by others' methods."

Dr. Abbott read an essay written by his son, on "The artistic side of bee-keeping." He said a great many articles are judged mainly by their appearance, and honey is one of them. These are a few simple, primary rules for preparing honey for the market:

1. Extracted honey should be carefully strained through two thicknesses of some kind of thin cloth, before bottling.

2. Clear flint-glass jars should be used, for common green glass makes the clear golden yellow of the honey look a muddy, greenish yellow.

3. Plain, neat labels with the name of the producer, kind of honey, etc., should be used.

It would be well for honey producers to profit by the above suggestions.

A few of the members are raising Alsike clover, and find it good for both bees and stock.

The meeting then adjourned, subject to the call of the executive committee.

H. O. ESTES, Sec.

Photographs of Bee-Keepers.—

The "medley" gotten up by E. O. Tuttle, containing the faces of 131 representative apiarists, and a printed sketch of each one, will be sent with the BEE JOURNAL for one year for \$1.75; or we will present it free, by mail, to any one, for a club of three subscribers and \$3.00.

A Modern Bee-Farm, and its Economic Management; showing how bees may be cultivated as a means of livelihood; as a health-giving pursuit; and as a source of recreation to the busy man. By S. Simmins. For sale at this office. Price, \$1.

CONVENTION DIRECTORY.

1888. Time and Place of Meeting.

- Apr. 11.—Stark County, at Canton, O.
Mark Thomson, Sec., Canton, O.
- Apr. 21.—Eastern Indiana, at Richmond, Ind.
M. G. Reynolds, Sec., Williamsburg, Ind.
- Apr. 24.—Des Moines County, at Burlington, Iowa.
John Nau, Sec., Middletown, Iowa.
- May 2, 3.—Texas State, at Greenville, Tex.
B. F. Carroll, Sec., Blooming Grove, Tex.
- May 5.—Susquehanna County, at New Milford, Pa.
H. M. Seeley, Sec., Harford, Pa.
- May 7.—Welland County, at Welland, Ont.
J. F. Dunn, Sec., Ridgeway, Ont.
- May 8.—Cortland Union, at Cortland, N. Y.
W. H. Beach, Sec., Cortland, N. Y.
- May 10.—Nashua, at Nashua, Iowa.
H. L. Rouse, Sec., Ionis, Iowa.
- Aug. 14.—Colorado State, at Denver, Colo.
J. M. Clark, Sec., Denver, Colo.

In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—Ed.

SELECTIONS FROM OUR LETTER BOX

Worst Part of the Winter.—G. M. Doolittle, Borodino, N. Y., on March 7, says:

According to that old "saw," regarding the bear seeing his shadow on Feb. 2, we were to have warm weather right along from that time on, but contrary to this we are having at this time, and for the past week, about the worst part of our winter, as far as cold and wind are concerned. Mercury at zero, or nearly there, is the order of the day in this locality, with no flight for our bees since last year. I almost envy those who report "bees flying," for I know that such with me, means safe wintering:

The Carniolan the Coming Bee.

—H. W. Carman, Hardinsburg, Ky., on March 6, 1888, writes:

My bees are in better condition now than ever before at this time of the year. I commenced the season of 1887 with 10 weak colonies, moving them 16 miles on a road-wagon, over a very rough road, about the middle of February, 1887. One colony was Carniolans, and the balance were Cyprians. I increased them to 21 colonies. I sold 10 colonies at \$7.50 per colony, and took 150 pounds of golden-rod honey in October. I have 11 colonies, 10 colonies Carniolans, and 1 colony of Cyprians wintered on the summer stands. I have not fed a pound of syrup or anything else. I hope to do a great deal better the coming season. I consider the Carniolan bee the "coming bee."

Use of Comb Foundation in the Sections.—Thos. O. Hines, Anamosa, Iowa, on Feb. 18, 1888, writes:

The inventor of comb foundation gave it the right name, for it is that and nothing more. Bees do not draw the wax out into cells. At the Nebraska convention some advocated putting in the hives all that could be put in, thus relieving the bees of secreting this wax. I cannot see that it saves what the bees would have to secrete to build this middle wall. I have often scraped the honey from the foundation, and have found it as perfect as when put in. I use heavy foundation the full size of the frame, and wired, for extracting, because they are stronger, and can be used oftener. In the

brood-nest I use starters $1\frac{1}{2}$ inches wide, because I can get straighter combs; if used wider than $1\frac{1}{2}$ inches, they get wavy.

I have a fine lot of unfinished sections, and I wish that I had as many more. I put these unfinished sections over the frames, and let the bees clean them out, when I carefully put them away, and use them next season. I can see no difference in quality from new ones.

I use starters in sections cut V-shaped, the full width. The "extra thin" foundation is the best. I cut the starters with a warm knife, and then use a plate just hot enough so as not to burn the wax. I put some pure wax on it, and when melted I take a section in my left hand, the grooved side up, and a piece of foundation in my right hand, which I wipe across and back over the plate of wax, and insert it in the groove. In this way I can put in 1,000 a day. I place my hives on the level so that the starters hang plumb, and in this way I get straight combs.

Rescue the Oppressed.—P. J. Englund, Fancy Prairie, Ills., on March 10, 1888, says:

I rejoice to know that I am one of the charter members of the Bee-Keepers' Union. It does seem to me that any bee-keeper with a soul as big as a "peanut shell," would come to the rescue when he knows that his brother is languishing in jail!

The Season of 1887.—W. H. Graves, Duncan, Ills., on March 8, 1888, says:

My report for 1887 is soon told. I wintered 96 colonies through the winter of 1886-87, and then doubled them down to 80 colonies. I never had bees in as fine condition as mine were on June 1. We all know what followed, and there is no use to repeat, suffice it to say that I took off less than 100 pounds of honey. I am very sorry that I put on a super. I cannot say how my bees are going to come through this winter. I have 45 colonies in the cellar, and 35 colonies on the summer stands.

Reversible Hives.—R. L. Crocker, Lockport, N. Y., on March 5, 1888, writes:

I notice that in the report of the New York State Bee-Keepers' Convention, on page 137, I am made to say that, "I am not as yet fully satisfied with the Heddon hive, and do not think it is the hive I want." Now that is not just the way I meant to be understood, but I should have said that I am not as yet fully satisfied that it is the hive I want, without further trial; for I am very much pleased with it for the first season, and have not had a chance to test it for the second season's work, only to a limited extent, and during a very poor season at that. So I am not fully satisfied that it is *not* the hive I want. I make this statement as only what is due Mr. Heddon and others who might wish to try the hive, and be deterred thereby after reading the report of the convention.

Hunting Bees, Ventilation, etc.—Frank Stephens, Hageman, Ind., on Mar. 10, 1888, writes:

In hunting bees in the woods for ten years, I found about 100 swarms. I found one good swarm that had 350 pounds of fine honey, in an ash tree.

During my experience in hunting bees I found several swarms in trees about 30 feet high; two trees had their tops broken off. The bees had been in trees for two years, that I know of, and the entrance was 8 inches in diameter. They wintered well,

and had lots of honey. They had upward ventilation. I have had bees in hollow logs several times, but I lost all of them.

I saw an article on page 811, referring to ventilation. I differ from that writer in regard to lower ventilation. Last spring my colonies did not have the diarrhea. I had the inside cellar door open every night into the pantry. When I would go down to the bees, they were perfectly quiet; I could not hear one bee hum. I think that upward ventilation proves to me to be the best.

Last year was a poor one in this locality. My 14 colonies were all strong in the spring, except 4 that were short of stores. I got about 300 pounds of comb honey in one-pound sections, and the increase was 11 swarms, secured by natural swarming, which gave me 25 colonies. These I put into the cellar on Oct. 5, 1887. They had a flight on Feb. 18. They are quiet in the cellar, but they had the diarrhea badly.

No Loss in Wintering.—G. W. Cole, Canton, Ills., on Feb. 29, 1888, says:

I have wintered 11 colonies of bees on the summer stands without loss. I used no protection, only covering them to the depth of 4 or 5 inches with planer shavings on the painted muslin, which I use for summer cover on the frames. I do not think that it is necessary to remove the summer cover, and put on porous cloth for winter.

Honey-Comb or Wax Becoming Honey.—Mrs. I. J. Glass, Sharpsburg, Ills., on March 5, 1888, says:

Having several times heard it stated that *honey-comb*, when mixed with extracted honey, when grained or candied, would turn to honey (the comb or wax); and not finding it so in my own experience, I come to the BEE JOURNAL, hoping that I will state it plain enough so that I may find an answer. The question is this: Will honey-comb or wax become honey, when mixed with extracted honey, either when granulated, or before that process takes place?

[No. "Wax" and "comb" are not the same, and never become such.—ED.]

The Canadian Convention Report.—Concerning Mr. Clarke's strictures on page 104, R. F. Holtermann, Brantford, Ont., remarks thus:

As Mr. W. F. Clarke has made some unwarranted comments on page 104, upon my report of the late meeting of the Ontario Bee-Keepers' Association, I wish to say that the spirit of his letter is manifest. Upon looking at the report which I made, the injustice of his attack is also manifest. I must admit, that when reporting conventions of bee-keepers, it would sometimes appear rather unfortunate that I stand in the relationship of "son-in-law" to one who is well and favorably known as a practical and successful bee-keeper, and one whose opinion is valued, and whose "sayings and doings" are reported amongst bee-keepers, not only in Canada, but the United States and Great Britain; and who also was President of the association, and occupied the chair. Under these circumstances, unless I follow the very rare practice of mentioning in my report that "President occupied the chair," without mentioning who he was, and unless I excluded the President's address, I am entirely innocent of reporting "the sayings and doings" of my very estimable father-in-law.

Then as to myself, I may have been a little presumptuous in giving a brief description of the bee-cellar that I was about to build, but even here I was honest enough to give Mr. Jacob Alpaugh credit for being the

father of the plan. I thought the plan so valuable that I adopted it, and will certainly be pardoned for thinking it a sufficiently valuable one to report; but I might have excluded my name, merely mentioning that "some one" said this.

Now as to the "most interesting discussions" which are omitted. In a condensed report which the AMERICAN BEE JOURNAL, with so much matter of value on hand, could only find room for, much must be excluded, and it must then be a matter of judgment as to what shall remain; and when matter of equal value has to be decided between, that which is newest to the readers of the paper you are reporting for should have the preference.

If Mr. Clarke means to say that I was absent when important matters were brought up, permit me to say that I always take full reports of meetings, and attend such sessions as I agree to; but Mr. Clarke can hardly mean this—this would be too dangerous ground for him to tread upon.

As to the position which I reported Mr. Clarke to have taken upon the honey extractor, I may here again have failed; I should either have excluded this as valueless, or perhaps Mr. Clarke will think I should have reported him at greater length; but I again state deliberately that some objected to Mr. Clarke's remarks, openly saying that we would have "strained" honey, if not extracted, and the feeling of our best bee-keepers was that the views expressed were not worth contradicting; he condemned the extractor—and no one else.

[Now that both sides have had an "airing of their views," let the matter rest. We have no room for such controversies.—ED.]

Victory or Death.—R. B. Woodward, M. D., Somerset, O., on March 9, 1888, writes as follows:

I send you to-day my dollar for the National Bee-Keepers' Union. I did not realize the importance of the Union until I read the persecution of Z. A. Clark, of Arkadelphia, Ark., on page 148. I think that now is the time to fight for our rights against *ignorance and cussedness*, and that our contribution to the "defense fund" shall be liberal, and sufficient to employ capable attorneys. It is now *victory, or death* to the pursuit. I have no financial interest in the matter, as I only keep a few colonies for pleasure, and honey for family consumption.

[Yes; it is now or never. If the present suits against bee-keepers are allowed to go against them, then it is "all up." Every bee-keeper who happens to have jealous neighbors would then have to obey the order to *move on*, like the poor Indian, until he is driven out of the country.—ED.]

Bees and Poultry.—W. C. Coffman, Pewamo, Mich., on March 5, 1888, writes:

I was somewhat surprised when reading the article by H. M. Cates, on page 123. My experience is different from his views about keeping poultry with bees. I let my Plymouth Rock and Wyandott chicks roam about the bee-yard and fields from early spring until fall, and in the past three years not more than one-half dozen chicks has been attacked by the bees, and those were some that would stand in front of the hives and peek in at the entrance, until a bee would persuade the intruder to move along, by stinging them usually about the head. The same chick does not stop to look for any bugs or worms about that hive, but moves on as fast as it can. I have never had a chick die from the effects of bee-stings, and I raise 300 each year. Those

who wish to keep poultry with bees, can do so without any trouble, as the bees will not kill the fowls, and they will receive as large profit for the money invested in poultry, as from any other rural pursuit. Bees in this locality are wintered in cellars, and are in fine condition.

Taxing Bees in Illinois, etc.—John Davis, Birds, Ills., on March 1, 1888, says:

It is rather early yet to report, but my bees have wintered splendidly this winter, with no loss so far. That is so much for chaff hives. I never have lost any bees in wintering. In this neighborhood bees have wintered well so far. Does the law require us to pay a tax on bees in this State?

[Yes; bees are taxable in the State of Illinois.—ED.]

Honey and Beeswax Market.

CHICAGO.

HONEY.—We quote: Fancy white clover 1-lb., 16@17c.; 2-lbs., 15@16c. Dark is slow sale at almost any price. Extracted is scarce, and sells at 7@10c.
BEESWAX.—23c.
Mar. 13. S. T. FISH & CO., 189 S. Water St.

CINCINNATI.

HONEY.—We quote extracted at 4½@9c. per lb., for which demand is good. Comb honey, 14@17c.—Supply large and demand slow.
BEESWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.
Mar. 11. C. F. MUTH & SON, Freeman & Central Av.

NEW YORK.

HONEY.—We quote: Fancy white in 1-lb. sections, 14@17c.; the same in 2-lbs., 12@14c.; buckwheat 1-lb., 10@11c.; 2-lbs., 9@10c. White extracted 8@9c.; dark, 5½@6c. Market dull; prices declining.
BEESWAX.—22@23c.
Mar. 10. McCaul & Hildreth Bros., 28 & 30 W. Broadway, near Duane St.

MILWAUKEE.

HONEY.—Choice white one-lb. sections, 17@18c.; 2-lbs., 15@16c.; 3-lbs., 14c. Dark and broken not quotable. Extracted, white in kegs and ½-barrels, 8½ to 9c.; in tin and pails, 9½@10c.; dark, ½-barrels and kegs, 5@7c. Market slow.
BEESWAX.—22@25c.
Mar. 10. A. V. BISHOP, 142 W. Water St.

DENVER.

HONEY.—Best white 1-lb. sections, 17@19c.; 2-lb. sections, 15@17c. Extracted, 7@10c.
BEESWAX.—20@23c.
Mar. 1. J. M. CLARK & CO., 1409 Fifteenth St.

KANSAS CITY.

HONEY.—We quote: Choice white 2-lb. sections, 17@18c.; dark 2-lbs., 14@15c.; choice white 1-lb., 18 to 20 cts.; dark 1-lb., 15@16c. White extracted, 7@8c.; dark, 5@6c. Demand is slow. White extracted is firm when in 60-lb. tin cans.
BEESWAX.—21 to 22c.
Feb. 29. HAMBLIN & BEARDS, 514 Walnut St.

BOSTON.

HONEY.—We quote: 1-lb. sections, 16@17c.; 2-lb. sections, 14@16c. Extracted, 8@9c. The market is not very brisk and sales are slow.
BEESWAX.—25 cts. per lb.
Feb. 24. BLAKES & RIPLEY, 87 Chatham Street.

SAN FRANCISCO.

HONEY.—We quote: White to extra, 15@16c.; amber, 13@16c. Extracted, white liquid, 7@7½c.; amber and candied, 5½@6½c. Market quiet.
BEESWAX.—20@24c.
Feb. 18. SCHLACHT & LEMCKE, 123-124 Davis St.

DETROIT.

HONEY.—Best white in 1-pound sections, 16@17c. Extracted, 9@10c. for light colored. Market weaker and supply only fair.
BEESWAX.—22@23c.
Mar. 14. M. H. HUNT, Bell Branch, Mich.

CHICAGO.

HONEY.—Prices range from 16@18c. for best one-lb. sections; 2-lbs. or about, 14@15c. Dark is slow of sale, with no steady price. Extracted moving slowly. Offerings of all kinds are large. Demand better.
BEESWAX.—22@23c. R. A. BURNETT.
Feb. 16. 161 South Water St.

KANSAS CITY.

HONEY.—We quote: White 1-lb., glassed, 16@17c.; unglazed, 17@18c.; and dark 1-lb., glassed, 15c.; unglazed, 16c.; white 2-lb., glassed, 16c.; unglazed 2-lb., 17c. California white 2-lb., 17c. California extracted in 60-lb. cans, 8c. Market quiet and receipts are larger.
BEESWAX.—No. 1, 20c.; No. 2, 18c.
Feb. 9. CLEMONS CLOON & CO., cor 4th & Walnut.



ALFRED H. NEWMAN,
BUSINESS MANAGER.

Business Notices.

If You Live near one post-office and get your mail at another, be sure to give the address that we have on our list.

Hilton's new pamphlet on Comb Honey Production has been reduced in price to 5 cents. For sale at this office.

If you Lose Money by carelessly enclosing it in a letter, it is without excuse, when a Money Order, which is perfectly safe, costs but 5 cents.

Please to get your Neighbor, who keeps bees, to also take the AMERICAN BEE JOURNAL. It is now so CHEAP that no one can afford to do without it.

Preserve Your Papers for future reference. If you have no BINDER we will mail you one for 60 cents; or you can have one FREE, if you will send us 3 new yearly subscriptions for the BEE JOURNAL.

Please write American Bee Journal on the envelope when writing to this office. Several of our letters have already gone to another firm (a commission house), causing vexatious delay and trouble.

Money Orders for \$5.00 and under, cost 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them.

Clover Seeds.—We are selling *Alsike Clover Seed* at the following prices: \$8.00 per bushel; \$2.25 per peck; 25 cents per lb. *White Clover Seed*: \$10.00 per bushel; \$2.75 per peck; 30 cents per lb. *Sweet, or Melilot, Clover Seed*: \$6.00 per bushel; \$1.75 per peck; 20 cents per lb.—by express or freight.

The Convention.—The pamphlet containing the report of the proceedings of the Union Convention in Chicago, is now published, and can be obtained at this office for 25 cents. Or bound up with the history of the International Society, and a full report of the Detroit and Indianapolis conventions, for 50 cents, postpaid.

Home Markets for honey can be made by judiciously distributing the pamphlets, "Honey as Food and Medicine." Such will create a demand in any locality at remunerative prices. See list on the second page of this paper.

Why Advertise in the AMERICAN BEE JOURNAL? Here are some good reasons:

1. Because it has a large and influential circulation in every State and Territory, Canada, and other foreign countries.
2. Because it is well-printed, and an advertisement in it appears neat and attractive, and invites a reading.
3. Because it reaches just the class of persons desired—professional men, lawyers, doctors, and the best of the rural population.
4. The rates are low as possible, and the returns from advertisements are satisfactory.

It is Extravagant Economy not to have hives, sections, comb foundation, etc., on hand when needed. To prevent disappointment, order early what you will need in that line. Then the hives can be nailed and painted in odd times, and the sections put together, so as to be ready at a minute's notice. It is a sad disappointment to need these things and then not have them on hand. They should be ordered very soon. We are promised an early spring, and a good honey crop.

Give a Copy of "Honey as Food and Medicine" to every one who buys a package of honey. It will sell lots of it.

Look Over last year's numbers of the BEE JOURNAL, and if any are missing, send for them at once, as we have but few left now, and they are daily becoming less.

A Pocket Dictionary will be presented for two subscribers with \$2.00. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

Yucca Brushes, for removing bees from the combs, are a soft, vegetable fiber, and do not irritate the bees. We supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

We Supply Chapman Honey-Plant SEED at the following prices: One ounce, 40 cents; 4 ounces, \$1; ½ pound, \$1.75; 1 pound, \$3. One pound of seed is sufficient for half an acre, if properly thinned out and re-set.

We Club the AMERICAN BEE JOURNAL and the "Bee-Keepers' Magazine" for one year for \$1.40; or with "Gleanings in Bee-Culture" for \$1.75; or with the "Apiculturist" for \$1.80; or the "Canadian Honey-Producer" for \$1.30; with the Bee-Keepers' Review, \$1.40; or all six for \$4.00.

Red Labels for Pails.—We have three sizes of these Labels ranging in size for pails to hold from one to ten pounds of honey. Price, \$1 for a hundred, with the name and address of the bee-keeper printed on them. Smaller quantities at one cent each; but we cannot print the name and address on less than 100. Larger quantities according to size, as follows:

	Size A.	Size B.	Size C.
250 Labels.....	\$1.50	\$2.00	\$2.25
500 Labels.....	2.00	3.00	3.50
1,000 Labels.....	3.00	4.00	5.00

Samples mailed free, upon application.

Advertisements.

FOR SALE—Large Apiary with appurtenances. Reason, bad health. Address, 12A1t DR. G. W. YOUNG, Lexington, Mo.

IMPORTED QUEENS.

FRIENDS: I have QUEENS in my Apiary as fine and as good as you can import to the free land of America. Yes, I mean just what I say! My Bees equal any that ever spread wing 'neath the sunny skies of Italy. You have but to try them and be convinced. From now through the season. Untested, \$1; Tested, \$2; Select Tested, \$2.50; Standard Breeders, \$3.00. BEES by the lb., \$1; Frame of Brood, 75 cts. R. H. CAMPBELL, (Lock Box 215), 12E12t MADISON, Morgan Co., GEORGIA.

ALSIKE CLOVER SEED

FOR SALE at \$6.00 per bushel. With 2 bushels of seed, sack is free; for less than 2 bushels, sack is 25 cents extra. On board the cars at Mauston. Address,

J. T. SMITH,
12A2t MAUSTON, Juneau Co., WIS.

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Is Nowhere compared with Eden's Patent Comb Foundation Fastener. It will fasten foundation of any size or shape from ¼-inch to full sheets, in 1, 2 or 4 piece Sections, either before or after they are put together, at the rate of 600 to 800 per hour.

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Among the contributors to this Number are such men as R. L. Taylor, James Heddon, H. R. Boardman, F. Boomhower, T. F. Bingham, J. A. Buchanan and C. C. Miller.

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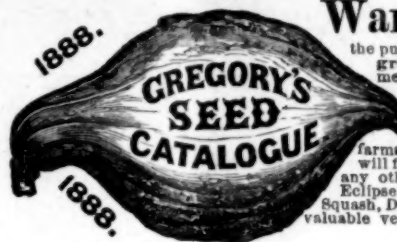
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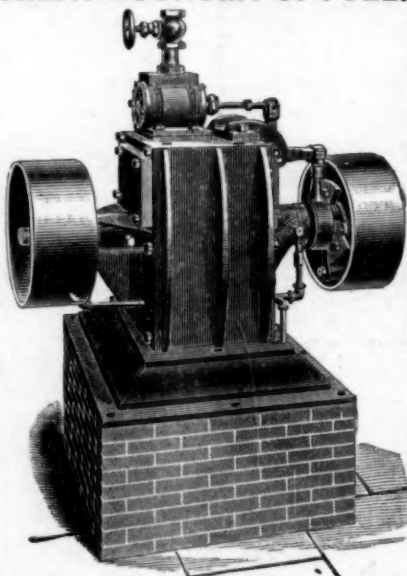
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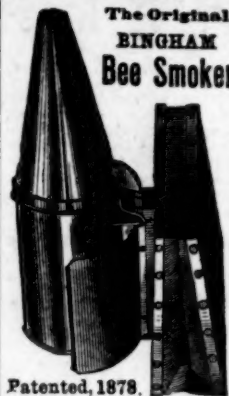


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